# Shhhh…
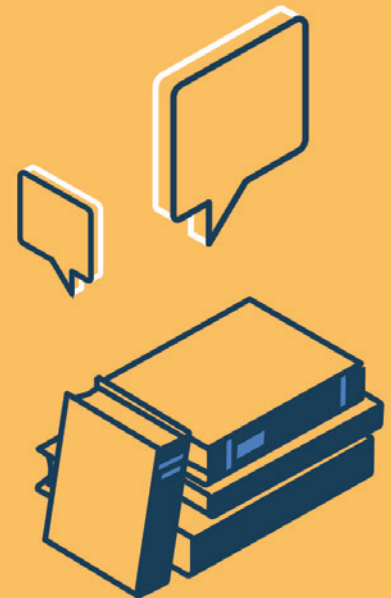## Combating the Cacophony
## of Content with Librarians

By Joan Donovan

Recent research about misinformation and the new coronavirus suggests that the news a person consumes is predictive of how they assess the risks of COVID-19 to their health and their community.[1] This statement may sound like common sense, but it has more serious implications when one starts to unpack the differences in available information about COVID-19.

*Any concerted effort to fix this problem may well require a fundamental reappraisal of how users access information online and how platforms curate it, as well as bold improvements to how civil society and other public interest actors engage with citizens in digital spaces.*

At Harvard Kennedy School's Shorenstein Center, the Technology and Social Change Research Project analyzes how media manipulation and disinformation affects particular communities and social institutions. Though the content put forward by any particular disinformation campaign is of course important, in order to analyze and understand the impact of misinformation, one must study the greater information ecosystem—the totality of news, entertainment, social media, and other sources available to a community and the infrastructure that supports it. As the confused and often contradictory responses to the COVID-19 pandemic in different areas of the world have shown, high levels of unchecked and unmitigated misinformation can affect individual and group behaviors with startling speed. Any concerted effort to fix this problem may well require a fundamental reappraisal of how users access information online and how platforms curate it, as well as bold improvements to how civil society and other public interest actors engage with citizens in digital spaces.

What happens when there is too much information on a given subject without strong oversight over what is verifiable and what is false? The World Health Organization has termed the overabundance of information an "infodemic," where it is increasingly difficult to find timely, relevant, and local information amid a torrent of content, some or much of it purposefully untrue.[2] Bad actors, from political propagandists to commercial operations selling harmful fake medical "cures" and counterfeit personal protective equipment, target unsuspecting information seekers looking for hand sanitizer, N95 masks, and immune-boosting supplements. Search and social companies continue to be unable to parse authoritative content, legitimate products, and real services from the predacious. The COVID-19 infodemic has overwhelmed the internet with new websites, posts, accounts, and ads, nearly all of which overpromise and underdeliver in their chosen areas. Online grift has long been a problem, but in the current pandemic the scale and audacity of this grift is truly enormous.

Goods and services aside, the infodemic has made it harder to find even basic information about the new coronavirus, COVID-19, and the steps individuals should take to protect themselves and others. Under normal circumstances, one might seek out information through peers or coworkers, but the need for social distancing has relegated most people to online forums and other areas of the internet, where conspiracy and medical misinformation thrive. Conspiracy-driven, click-bait content, with themes like those below, exists on all major social media platforms:

*"COVID-19 IS A CHINESE PLOT TO DESTROY THE U.S. GOVERNMENT"*

*"COVID-19 IS A DEMOCRAT PLOT TO DESTROY TRUMP"*

*"COVID-19 IS A PHYSICAL REACTION TO 5G TOWERS"*

*"COVID-19 IS POPULATION CONTROL THROUGH MICROCHIPPED VACCINES"*

It is difficult to prove a statement false when it is completely made up. What evidence can be cited to prove or disprove an event that never happened? Consequently, the impulse to debunk or set the record straight on medical misinformation has led to a cacophony of content, where truth and falsehoods are commingled in search queries that return articles, posts, and videos based on popularity and other behavioral signals. As tech companies grapple with the presence of misinformation, they have turned to monitoring signals of "coordinated inauthentic behavior" (a concept coined by Facebook) because assessing the truthfulness of content is a messy business, especially when it comes to politics and news.[3]

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Over the past few years, platforms did not consider medical misinformation as political. Some, like Pinterest, were willing to remove vaccine misinformation, but this was left up to the policies of a particular platform. Nevertheless, tech companies have discovered that population health is a deeply political subject. Almost any sociologist would agree that health is politics by other means, citing the severe inequalities in access to healthcare (coupled with politicians' mismanagement of resources) and the slow carefulness required by science when developing therapeutics. At this moment, though, unequal access to information has bogged down efforts to distinguish truth from falsehood online. Scientific findings are increasingly issued through press releases by major global pharmaceutical corporations, where the competition to rush a vaccine is exacerbated by political rhetoric downplaying the risks of COVID-19. Without transparency in data, journalists and researchers face significant barriers in fact-checking information that is already gaining popularity on social media, which leaves the public at a disadvantage when seeking knowledge. As it turns out, junk information is cheap to produce and profitable; knowledge, by contrast, is both expensive and not so interesting.

Medical misinformation online is a serious issue today, but this has not always been the case. In a 1999 issue of the *Journal of Public Health Medicine*, Dr. Vince Abbott warned, "The [internet] should not be considered as a reliable source of information on subjects about which one knows little. This is especially true for medical information, as... much of what a typical user may find will be inaccurate or biased."[4] Yet the authoritative voices of news or academic journals found it difficult to compete on the wide-open spaces of the internet, which allowed self-proclaimed experts to spread their ideas on a massive scale without gatekeepers, fact-checkers, or a need for credibility and authority. This slow cultural shift away from traditional media sources opened the way for junk information to flood the information ecosystem.

Even these worrying trends did not become a global problem until they reached critical mass. A confluence of factors led up to the present infodemic moment: antivaccination groups that began to use social media platforms to recruit new adherents, social media companies

that introduced recommendation algorithms which made medical misinformation easier to discover, influencers who began pushing anti-science viewpoints to their subscribers and followers, and politicians who saw an opportunity to increase their base and reach by appealing to anti-science rhetoric. The international effects of these trends were clear before the COVID-19 pandemic: disinformation also inhibited the response to the 2018 Ebola outbreak, and vaccine skepticism and other aspects of today's infodemic are challenging public health officials around the globe.[5]

The rollout of the HPV (human papillomavirus) vaccine during the growing popularity of social media showed one instance of the damaging effects of medical misinformation on a vulnerable audience.[6] In 2014, a small town in Colombia saw a wave of hospitalizations after videos of young girls having seizures were shared on social media, supposedly showing the side effects of the HPV immunization. An investigation concluded that the physical symptoms of those hospitalized were attributable not to the vaccine, but were psychogenic reactions linked to fear and anxiety about this vaccine misinformation. When Colombian President Juan Manuel Santos held a press conference to dispel the rumors, his denial of any connection between the vaccine and the supposed reactions to it angered local residents of the village, who became even more distrustful of the vaccine.[7] This episode suggests that medical misinformation can be felt deeply and does lasting damage to public trust in medicine and government.

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As a result of the current pandemic, doctors and public health researchers are echoing the call of misinformation researchers to find a way to share privacy-protected social media data, in order to support ongoing research on misinformation and vaccine hesitancy.[8] Yet past collaborations between Facebook and social science researchers failed for myriad reasons: some technical, most political.[9] The major privacy hurdle still remains. Nonetheless, without enforceable policies for auditing social media platform companies and real penalties for distributing dangerous medical misinformation, there can be no resolution for unchecked misinformation, even when it can have life-or-death consequences for the public. Calls for transparency also are inadequate without enforcement; companies have every incentive to keep what they know, and what they choose to conceal, hidden from public scrutiny.

Funding for research on misinformation also needs to focus on mechanisms that protect communities and create accountability. University researchers, especially, should not be using their limited funding to conduct glorified content moderation for companies valued in the billions. The misinformation research scene is beginning to replicate the same funding patterns that now surround universities in the pockets of pharmaceutical companies, where research is encumbered by corporations looking to protect their reputations.[10] The fields of critical internet studies and public interest technology will have to rise to the occasion and come up with forms of research that rely less on platform data in order to determine how people truly reckon with misinformation daily.

We also need a corpus of research investigating how civil society organizations, health professionals, and government (not politicians) can protect the integrity of online communities and develop bold communication strategies that rise above the cacophony of misinformation. What would it look like if these actors endeavored to correct misinformation within one hour

of it gaining traction online? What would a distributed debunking operation look like if, for instance, it were organized around specific locations, events, and issues? Would this approach open the way for tech companies to change and embrace public interest obligations?

Finally, there is no communication without misinformation. There will be a lag in confronting dangerous health misinformation, and some issues will persist even as every intervention is exhausted. And yet across every issue that routinely attracts disinformers, these companies can do more to curate content and systematically privilege credible and responsible voices over inflammatory, divisive, sensational content. Social media companies might step up to the challenge by hiring thousands of librarians to build a content curation model that does not rely so heavily on reactionary moderation.[11] This move would fundamentally rewire our information ecosystem, but it is perhaps the best fix for our digital ecosystem.

# Endnotes

1    Margaret Sullivan, "The Data Is In: Fox News May Have Kept Millions from Taking the Coronavirus Threat Seriously," *Washington Post*, 28 June 2020, *www.washingtonpost.com/lifestyle/media/the-data-is-in-fox-news-may-have-kept-millions-from-taking-the-coronavirus-threat-seriously/2020/06/26/60d88aa2-b7c3-11ea-a8da-693df3d7674a_story.html*.

2    "Managing the COVID-19 Infodemic: Promoting Healthy Behaviours and Mitigating the Harm from Misinformation and Disinformation," World Health Organization, 23 September 2020, *www.who.int/news/item/23-09-2020-managing-the-covid-19-infodemic-promoting-healthy-behaviours-and-mitigating-the-harm-from-misinformation-and-disinformation*.

3    For more details on "coordinated inauthentic behavior," see Nathaniel Gleicher, "Removing Coordinated Inauthentic Activity," Facebook, 8 October 2020, *https://about.fb.com/news/2020/10/removing-coordinated-inauthentic-behavior-september-report*.

4    Vincent Abbot, "Web Page Quality: Can We Measure It and What Do We Find? A Report of Explanatory Findings." *Journal of Public Health Medicine* 22, no. 2 (1999): 191-197, *https://a-f-r.org/wp-content/uploads/sites/3/2016/01/2000-Public-Health-Med-Web-page-quality-can-we-measure-it-and-what-do-we-find-A-report-of-exploratory-findings.pdf*.

5    David P. Fidler, "Disinformation and Disease: Social Media and the Ebola Epidemic in the Democratic Republic of the Congo," Net Politics blog, Council on Foreign Relations, 20 August 2019, *www.cfr.org/blog/disinformation-and-disease-social-media-and-ebola-epidemic-democratic-republic-congo*.

6    Joan Donovan, Review of *Stuck: How Vaccine Rumors Start—and Why They Don't Go Away*, by Heidei J. Larson, *Nature*, 22 July 2020, *www.nature.com/articles/d41586-020-02192-w*.

7     Ibid.

8    Raina M. Merchant and Nicole Lurie, "Social Media and Emergency Preparedness in Response to Novel Coronavirus," *JAMA* 323, no. 30 (23 March 2020): 2011–12, *https://jamanetwork.com/journals/jama/fullarticle/2763596*.

9     Joan Donovan, "Redesigning Consent: Big Data, Bigger Risks," *Misinformation Review*, 14 January 2020, *https://misinforeview.hks.harvard.edu/article/big-data-bigger-risks*.

10    Ray Moynihan et al., "Pathways to Independence: Towards Producing and Using Trustworthy Evidence," *BMJ* 367 (2019), *www.bmj.com/content/367/bmj.l6576*.

11    Joan Donovan, "You Purged Racists From Your Website? Great, Now Get to Work," *Wired*, 1 July 2020, *www.wired.com/story/you-purged-racists-from-your-website-great-now-get-to-work*.